

CARNEGIE

MAGAZINE

January 1956

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Cowrie shell necklace worn by South Sea Islanders and used for money. On exhibit at Carnegie Museum.

The Early Economy of South Sea Islands



WHEN CAPTAIN COOK first landed in the Society Islands in 1768, he discovered an economy of "nature" guiding the Islanders.

Little effort was directed by South Sea Islanders toward the cultivation of crops. Mainly, each group depended on the particular vegetation of their island. A few natives made an attempt to raise sweet potatoes and other root vegetables, but most subsisted on nature's abundant supply of taro, arrow root, breadfruit, bananas and coconuts. The surrounding sea provided fish to supplement this diet.

Traders following in the footsteps of Captain Cook bartered cheap trade goods for copra, pearls and pearl shells. As there was no gold or other metal source in the islands, no currency system developed and there was no need for one during this early period that saw the South Sea Islands opened to outside exploration.

Only when trade activities increase in complexity, does an economy need the flexible services provided by modern commercial banking.

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COVER

Someday more will be known about the wild horse that roamed what is now the western section of the United States, many thousands of years ago. The most interesting phase of any animal life is its relation to Man. Was the horse familiar to the early predecessors of our present-day Indians? The question has not yet been answered. The cover illustration is taken from the Panoroll at the Museum by Ottmar F. von Fuehrer, chief staff artist, and shows the horse of the Pleistocene Epoch.

CARNEGIE MAGAZINE, dedicated to literature, science, and art, is published monthly (except July and August) at 4400 Forbes Street, Pittsburgh 13, Pennsylvania, in behalf of Carnegie Institute, Carnegie Library of Pittsburgh, and Carnegie Institute of Technology. James M. Bovard, editor; Jeannette F. Seneff, associate editor; Melva Z. Bodel, advertising manager. Telephone MAyflower 1-7300. Volume XXX Number 1, January, 1956. Permission to reprint articles will be granted on request. Copies regularly sent to members of Carnegie Institute Society. Subscriptions outside Allegheny County \$2.00 a year.

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JANUARY CALENDAR

AMERICAN PAINTINGS 1815-1865

Fifty paintings lent from the private collection of Maxim Karolik will be shown in the second-floor galleries January 15 to February 12. (See page 15.)

NINETEENTH-CENTURY PITTSBURGH ARTISTS

An exhibition prepared by the Henry Clay Frick Fine Arts Department of the University of Pittsburgh may be seen in Gallery J from January 15 to February 12.

JUNIOR PATRONS OF ART

Saturday, January 14, the Junior Patrons of Art, a creative class for children of Carnegie Institute Society members, will observe parents' day and close the first semester with an exhibition of paintings on the balcony of the Music Hall foyer. The new ten-week term will open Saturday, February 25.

MOZART COMMEMORATIVE RECITAL

Eight young local artists will play a variety of Mozart's works from 12:15 to 1:15 p.m., on Friday, January 27, in Sculpture Hall, to mark the 200th anniversary of the composer's birth. This recital, given without admission fee, is sponsored by the Division of Education and presented by the Junior New Friends of Music.

CARNEGIE INSTITUTE SOCIETY LECTURES

Mondays, 8:15 P.M., Mellon Auditorium, Mt. Lebanon

Tuesdays, 6:30 and 8:30 P.M., Carnegie Music Hall

Admission by membership card

January 9-10—FROM DODOS TO DEVIL RAYS

Quentin Keynes will show proof that the legendary dodo really existed and picture the capture of a giant devil ray, as part of his talk on numerous small Pacific islands lying north and west of Madagascar.

January 16-17—MEDITERRANEAN ISLES

Herbert Knapp will take us to Crete, Rhodes, Malta, Capri, Corsica, and Mallorca in his film of islands of the inland sea once considered the world's center.

January 23-24—ITALY

Kenneth Richter outlines the human history of Italy from Rome of the Caesars to today, with special emphasis on Florence and other centers of culture, automobile manufacturing at Turin, the fashion industry in Rome.

January 30-31—MODERN ART

(One illustrated lecture each evening, at 8:15 P.M.)

S. Lane Faison, Jr., director of the Lawrence Art Museum at Williams College, Williamstown, Massachusetts, will speak. Friends of members are welcome.

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POINTS AND PICAS

... *being a gallimaufry of divers comments on Benjamin Franklin, the graphic arts industry, and International Printing Week*

KENNETH R. BURCHARD

In its earliest form, printing from blocks was invented in China before the middle of the ninth century. Printing from movable type was invented there by the middle of the eleventh century, but because of the difficulties in using the many Chinese characters, this method never became widespread. It was not until Johann Gutenberg, of Mainz, Germany, printed from movable types in 1440, that the growth of modern printing began, and Gutenberg is generally accredited as being the father of printing.

In this country one of the early printers was Benjamin Franklin, who was also one of the founding fathers and a signer of the Declaration of Independence. Having identified himself as a printer in his own epitaph, he has been accepted as the patron saint of printing in America, and the week of his birthdate has been annually acclaimed as Printing Week. This year during the period January 15-21, the International Association of Printing House Craftsmen and the National Franklin Committee of the Franklin Institute are cooperating to celebrate International Printing Week and the 250th anniversary of Benjamin Franklin's birthday.

So much has been written about Franklin, in relation not only to printing and the many allied graphic arts but to other fields as well, that it seems redundant to add anything more to the collection. The year 1956, the 250th anniversary of his birth, however, places this great American in the limelight once again. Although Benjamin's name is familiar to every school child, the average person usually recalls only—to borrow a joke—that he was



BENJAMIN FRANKLIN BY DAVID MARTIN (1767)
From a mezzotint to be seen in Independence Hall and elsewhere in Philadelphia.

"a poor printer who moved to Philadelphia, married a woman and discovered electricity."

Franklin was a genius of many gifts: a scientist, an inventor, printer, writer, statesman, and diplomat. At the same time he was a common man interested in all the practical details of everyday working and living. As he stated in his famous autobiography:

I now contrived a mould, made use of the letters we had as puncheons, struck the matrices in lead and thus supply'd in a pretty tolerable way all deficiencies. I also engrav'd several things on occasion; I made the ink; I was warehouseman and everything.

Learning the printing trade as an apprentice to his brother James, and later by working in a large printing house in London, Franklin was able to enter business on his own account when he returned to Philadelphia. His venture was a financial success. The influence of the *Pennsylvania Gazette*, which became known as the most readable paper in Colonial America, and the quality of his work led to his appointment as public printer for Pennsylvania, New Jersey, Delaware, and Maryland.

Franklin was a believer in private enterprise, feeling that every man, regardless of race, color, or creed, had the right to opportunities to earn wealth and position. An adherence to industry and frugality formed a major point in his business policy, and enabled him to retire from active business after twenty years. After his retirement he served in a number of public offices, which paid him varying amounts up to £ 2500 a year when he was advanced to the rank of Minister to France. When he died, his estate was approximately \$250,000, including houses in Philadelphia, three thousand acres of land in Georgia, land along the Ohio and in Nova Scotia; this in addition to stocks and bonds in excess of £18,000.

Two hundred years ago Benjamin Franklin startled the American people by insisting that colleges should not be restricted to teaching "ornamental studies" for the wealthy. He personally solicited men willing and able to subscribe funds, and founded a school that later became the University of Pennsylvania. His proposals brought practical studies into respectability and broadened the whole viewpoint toward education. Franklin would be astounded if he could see how his ideas have been accepted, even to the point where training in graphic arts at the college level is being offered by more than a hundred institutions. One of the first in the nation to offer such work, leading to an academic degree, is the

School of Printing Management, Carnegie Institute of Technology, located here in Pittsburgh. Training at this school prepares students for administrative positions in all phases of the industry by including in the curriculum general academic courses, printing techniques, and management. Graduates of this program hold important positions in graphic arts plants throughout the United States and several foreign countries.

Franklin also favored realistic education for young women as well as young men, being convinced that a knowledge of accounting was desirable for the thrifty housewife. He expressed the utmost confidence in the ability of women to take a place alongside men in business and in the home.

Preservation of the free communication of ideas was one of the central objectives of Franklin's life. At the age of sixteen he was fighting publicly for freedom of the press and free speech; his last public act, before he died at eighty-four, was an appeal for the emancipation of slaves, employment for freed Negroes, and education of slave children.

Franklin believed that the press had a great responsibility in maintaining these freedoms:

The conductor of a newspaper should, methinks, consider himself as in some degree, the guardian of his country's reputation.

Franklin has not been alone in championing the freedoms. Great men of the past have, as others in the future will, cast their influence upon the world by recording their thinking

Mr. Burchard, assistant dean and professor in the School of Printing Management at Carnegie Tech, began his career as a "printer's devil" with a country weekly although he was graduated from William Jewell College in Liberty, Missouri. He is a past president of the International Graphic Arts Education Association, has exhibited in national and international photographic salons, and is active in the International Association of Printing House Craftsmen and various national trade associations. He is associate editor of *Graphic Arts Education Magazine*.

on the printed page. The spread of Christianity, the dissemination of knowledge, the development of invention, manufacture, and commerce—our very civilization—have evolved to the present level because of printing. Often referred to as "the Art Preservative of all the Arts," it is difficult to express adequately in words the great importance of the craft. Victor Hugo once said, "The invention of printing was the greatest event of history." Certainly the power of the printing press is one of the greatest ever created; the end of the Dark Ages came with the invention and growth of printing.

Printing in Pittsburgh began with the arrival of a wooden press brought across the mountains from Philadelphia by John Hall and Joseph Scull. A Pittsburgh lawyer had persuaded the two young printers to come here, and on July 29, 1786, the first newspaper west of the Alleghenies appeared as the *Pittsburgh Gazette*. A later issue of that year may be seen at the Carnegie Library.

Although Pittsburgh is not one of the nation's biggest producers of printing, this industry has been growing rapidly the past ten years, and it is still expanding. Total sales for 1954 were approximately \$15 million; and total employees engaged in graphic-arts pursuits are now close to fifteen hundred. Practically every type of service in this field, with the exception of gravure, is offered by approximately three hundred plants in the vicinity. Local printers have high standards of quality; two firms consistently place among the top awards in a national contest conducted in recent years by the Printing Industry of America.

There are approximately forty thousand printing plants in America; in spite of this decentralization, printing, publishing, and the allied trades rank as one of the largest industries. An indication of the position of printing compared to other industries in the

United States is shown by these figures from the 1952 Survey of Manufacturers:

	RANK
Number of establishments	3rd
Salaries and wages	8th
Value added by manufacture	8th
Number of employees	9th

In that year total sales amounted to approximately \$8½ billion; total employment stood at 779,000.

When we consider the present-day aspects of printing and the plethora of printed matter that besets the citizen of today, it is hard to believe that less than three hundred years ago Sir William Berkeley, governor of Virginia, said: "I thank God we have no free schools, nor printing: and I hope we shall not have these hundred years, for learning has brought disturbance and heresy into the world and printing has divulged them." Even later, Lord Effingham, governor of Virginia in 1683, had special orders "to allow no person to use a printing press on any occasion whatsoever."

It is significant that Governor Berkeley's statement linked education and printing together in common acceptance of their very close relationship. This interdependence of learning and printing has been fundamental from the beginnings of written communication. It is further significant that religious and political heads have never ceased in their efforts to control the printed word and thereby the thoughts and actions of the people. Kings, dictators, popes, and presidents have seen the efficacy of a controlled or censored press; it is doubtful whether publishers and printers will ever be completely free of such pressure.

A year before Benjamin Franklin died, when the French revolutionary movement had started, he wrote:

God grant that not only the love of liberty but a thorough knowledge of the rights of man may pervade all the nations of the earth, so that a philosopher may set his foot anywhere on its surface and say: This is my country.

THE SATURDAY CONSORT

ROBERTA STERNE

WHILE such art treasures as paintings of sixteenth-century Flemish masters, trecento Italian panels, Renaissance sculpture, and Gothic architecture find ever wider appreciation, early music is known only to a relatively small public. Names like Giotto and Van Eyck are familiar to most art-lovers, but those of Machaut and Josquin des Prés from the same periods mean little to the average concertgoer.

One important reason for this is that music, unlike the other arts, must be performed and interpreted in order to be experienced; and many difficulties have hindered adequate performance. The inaccessibility of authentic instruments, the work of copying music not available in printed editions, the necessity for transcribing early music into modern notation, the long study required to become familiar with ornamentation, style, and phrasing of the various periods: these have all been barriers. Musicologists already have helped make available some of this music; and the pioneering work of instrument-maker, performer, and scholar Arnold Dolmetsch, some fifty years ago in England, proved that hearing such music could be musically stimulating. However, much remains to be done to further appreciation of early music by a large public; and this can best be accomplished by those who are both concert performers and musicologists.

The Saturday Consort, founded in Pittsburgh in 1951, is well equipped for such a task; for three of its six members have done advanced work in musicology, and all had played professionally before the group was founded. More important, they love fine chamber music of all periods: their specialization has come about only because they feel

some of its important aspects have been neglected, and because they enjoy the tonal beauty of early music played on appropriate instruments. Their performances are devoted to authentic representation of music from the medieval through the baroque eras. Given sufficient hearings, they feel, this music can be placed in musical and historical perspective and made a permanent part of chamber-music literature; for its best deserves to rank with masterpieces of any period.

To see what its aims involve, a closer look must be taken at the group's activities. Source material has to be studied in the best libraries in this country and on microfilm from museums and libraries abroad. Then the music is not only transcribed from the original

ANNUAL CONCERT OF

The Friends of the Music Library

Monday, January 23, at 8:30 P.M.

HALL OF SCULPTURE

THE SATURDAY CONSORT

A PITTSBURGH GROUP

will present Renaissance and Baroque music
on instruments of those periods

The Friends of the Music Library make annual contributions of music and music materials, records and record equipment to the Music Division of Carnegie Library, and encourage musical understanding in our community through stimulating use of the facilities of the Music Division. Anyone interested may become a member by contributing \$1.00 or more. Checks should be sent to Robert Griswold, treasurer, 222 Melwood Avenue, Pittsburgh.



COLIN STERNE, CONRAD SEAMEN, ROBERTA STERNE, AND PATTY GROSSMAN PLAY RECORDERS. HOMER WICKLINE IS AT THE OTTAVINA HARPSICHORD.

sources, but often compared to other existing versions. In many cases keyboard accompaniments must be supplied in compositions where only the bass line is indicated. Then of course comes the inevitable copying of parts; and all this before the group can even begin the work of rehearsing to perfect phrasing, intonation, and similar problems common to any musical group. This may sound like a collective headache, and at times it is. More often, it is an exciting challenge; and under the guidance of co-directors Colin Sterne and Homer Wickline, the efforts of the group have been continually rewarded by the music itself. Despite the research and training that must form the groundwork for their ensemble, the Consort feels that performing emphasis should be on the musical enjoyment inherent in the works themselves. If the

pleasure these players have found in performing various types of early music can be transmitted to the listener, they feel they have been successful.

In instrumental resources, the Saturday Consort is unique in this country, and its members consider themselves fortunate in being able to combine such diverse instrumentation. Because they all play more than one of the early instruments, the group of six includes a whole consort (ensemble) of recorders, a viol consort, a half dozen different early keyboard instruments, lute, and various percussion instruments. Tenor voice is also used to perform the rich vocal literature of early music.

Most of the instruments are authentic reproductions of museum pieces dating from the period, but some are actually hundreds of

years old. A pentagonal virginal of cypress wood was made in Italy in the sixteenth century. An especially interesting feature of this instrument is the delicate rose carved in the soundboard; and its tone, somewhat more full and mellow than that of the harpsichord, is probably more beautiful now than when the instrument was built.

Another original instrument is a Bach flute. A single-keyed instrument of boxwood and ivory, it was made in the eighteenth century and is used for music of the baroque period.

Among the reproductions, the wing-shaped spinet, similar in tone to the harpsichord, and the clavichord, that delicate ancestor of the piano, are especially beautiful. The viols are represented by a complete family, including a specially constructed seven-string bass gamba. These fretted predecessors of the modern strings, all of them held downward like the cello, are not only lovely to see, but their thin and sweet but edgy sound is well suited to the contrapuntal music written for them. The more familiar recorders are used in all sizes, from sopranino to bass. Some among them are made of such rare woods as grenadilla, olive, or ebony, resulting in a variety of tone qualities.

All the early instruments can be beautifully expressive, and each has its peculiar advantages and limitations. They are as essential to the music of their eras as is the piano to the works of Chopin, the modern string quartet to those of Beethoven. They differ considerably from more recent instruments in the care they require, and many small catastrophes and triumphs within the group result from

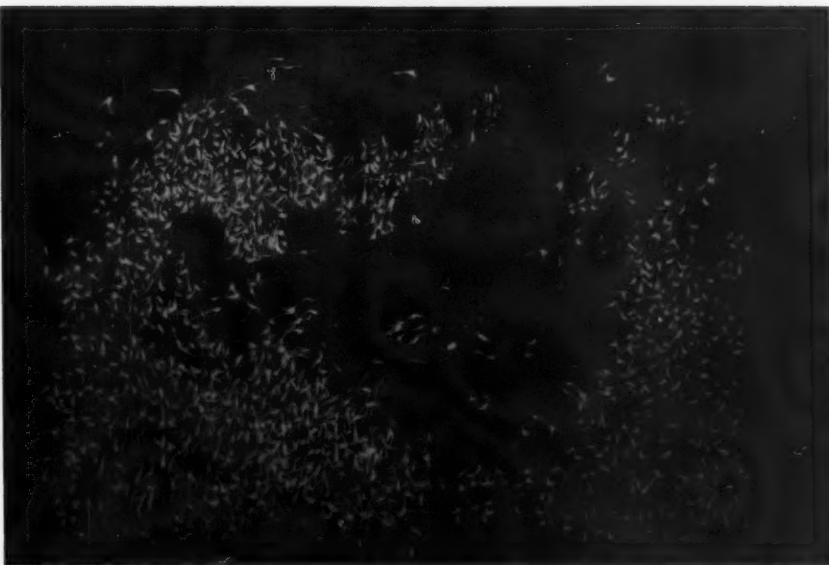
Roberta Sterne, concert virginalist, harpsichordist, and recorder player, has appeared with her husband in recitals throughout the country, as well as with the Saturday Consort. She teaches recorder and is also currently lecturer in the modern-language department at the University of Pittsburgh.

this fact. A pianist is never subjected to finding all the keys of his instrument out of order shortly before a concert—but weather conditions once caused this to happen to one of the Consort. Harpsichordists and virginalists must also be their own tuners, because of the frequency with which tuning must be done; and they replace plectra (plucking devices) or do whatever else is called for. Recorders are also subject to tuning troubles caused by changes in temperature and humidity; and viols are notoriously fragile, needing constant care and occasional repair. The lute, too, must be handled with great care—and perhaps this helps explain why there are not more players of these instruments.

The activities of the Saturday Consort have included concerts, radio broadcasts, and television appearances in New York, Pittsburgh, and other cities. Performances this season will include Washington, Chicago, and New York. In Pittsburgh, the first concert of the Saturday Consort will be given January 23 at Carnegie Institute, under auspices of the Friends of the Music Library.



KARL NEUMANN PLAYING BASS VIOLA DA GAMBA.
MRS. STERNE AT ANCIENT ITALIAN VIRGINALS.



MIGRATING BIRDS BY NORMAN LEWIS

THE LAST PRIZE

GORDON BAILEY WASHBURN

THOSE of us who more or less live on the Carnegie Institute premises were not excessively surprised when the Popular Prize of \$200.00 in the 1955 INTERNATIONAL was voted to Norman Lewis for his *Migrating Birds*. We had noticed that this charming painting by a well-known painter of New York City, a Negro artist, had always stopped people on the stairs where it hung. Besides, a great many had taken the trouble to ask its price. Even so, we expected John Koch's, Andrew Wyeth's, or perhaps Brian Connelly's pic-

ture to crowd it down the list. We didn't believe that it would be kept at the top by a landslide vote, as it finally was.

These three naturalistic artists, in the order mentioned, were the chief runners-up. And they were supported by Matta, Rufino Tamayo, and Leonardo Cremonini. The next three were Jack Levine, Jimmy Ernst, and Colleen Browning, with Clara McDonald Williamson, Sue Mitchell, and José Mijares as last but not least.

Since the popular prize-winner by Norman Lewis is far from being a straight naturalistic picture—some people only belatedly discovering that the sprays of white flakes on its pale brown ground are actually flocks of

(Turn to page 15)

Mr. Washburn, director of fine arts at Carnegie Institute, organized the 1955 PITTSBURGH INTERNATIONAL EXHIBITION OF CONTEMPORARY PAINTING, which presented 328 paintings from 23 countries and attracted 160,000 visitors during the nine weeks closing December 18.

THE RELUCTANT EXECUTIVE

Sloan Wilson's "The Man in the Gray Flannel Suit" and the postwar "diminuendo" mood

SOLOMON B. FREEHOF

THE Second World War brought a greater world disturbance than the First. It was truly a "world" war, fought in almost all the lands and over all the oceans. It was waged with greater bitterness, with greater destructiveness. Men jumped from airplanes and were taught to murder silently. They dropped a burning oil. They used flame-throwers. It was a more awesome war than the First World War. The war itself, in all its awesomeness, has already received adequate treatment in American literature. *The Naked and the Dead*, by Norman Mailer, gave a true picture of the bitterness and horror and the personal anxieties of the soldier in the Second World War; and books like Wouk's *The Caine Mutiny* have perpetuated for us a clear concept of the battle on the ocean. Yet, though the War itself has been well described, the postwar period has not been touched.

Knowing what World War I did to the American and the world spirit, we want to know what the Second—and worse of the two—has done to us. No writer has approached this problem because the task is complex, and the deeper results will take years to emerge. Whatever the Second World War has done to us as persons is not, as yet, so manifest as was the radicalism or the jazz era after the First World War. But the effects must be deep and must be important. Now Sloan Wilson has tried it in his light-seeming novel, *The Man in the Gray Flannel Suit*.

It's a typical American novel, as we can see immediately. If the story of the postwar social and moral moods were laid in England, the author would be likely to describe the ruling class, now deprived of its land, now

broken in its old character, losing at last its capacity for leadership. Or if the story were laid in Italy, the author would perhaps deal with peasantry, the simple, patient, South-Italian peasantry, and show what World War II has done to it. In America, the natural choice of the average, nonembittered American novelist is the middle class, the sort of people who have been recorded in our literature by John Marquand in his *The Late George Apley* or *H. M. Pulham, Esquire*. These novels of the people who live in the suburbs, whose families had wealth at one time and now are merely "getting along," who come into New York to do so-called white-collar work—these people were the chosen characters of Marquand; and these are also the characters of Sloan Wilson.

The characters are not many, and the novel is easy to read. There is, of course, the hero Tom Rath, an ex-paratrooper, who lives in Westport, Connecticut, and works in New York. At the beginning of the story he has a nice position as assistant executive of a foundation, the Schanenhauser Foundation, all very quiet and comfortable work. It was a job that his rich grandmother got for him, his grandmother who still has the great family house in South Bay on Long Island. His wife Betsy is the beautiful girl whom he had married before he went to war. A shadowy yet important character, who does not appear in the novel except by reminiscence, is the girl Maria, whom he loved and lived with in Rome. Then there is Tom's new employer Ralph Hopkins, the great executive, as well as four or five other characters.

The crux of the story comes near the end.

Hopkins offers Tom a tremendous opportunity, a chance to succeed him as head of the great chain of interlocking enterprises. Tom refuses, saying, "Mr. Hopkins, I don't want your kind of life. I just want happiness. I want to go home to Betsy. I want to have a good enough job so I can live a little bit better, but I don't want to give up everything for business success."

Ralph Hopkins looks at him and says, "Well, you're honest and I think you're a good boy, and I shall keep you in your present job." Then his emotions burst from him, through the curtain of courtesy, and he says, "Somebody's got to do the tough jobs. Somebody's got to do them day and night, and give up everything for them. You fellows don't really work. You're half dead anyhow. You're all riding on my back."

Tom says, "Yes, I know. I appreciate what you're doing, but I don't want to do it. I just want a good living and I'll put honest work into it, but I'm not going to give up my whole life for tremendous business attainment."

Then the book fades away from that point. Tom is informed by Caesar Gardella, a fellow paratrooper, that Maria, in Rome, had married after she had borne Tom's son. Now her husband has died and she is in want. Caesar asks whether Tom would consider sending a small amount of money regularly, to support his son. Tom confesses all this to Betsy. Of course there is a terrific quarrel, but they both quiet down and arrange that this responsibility be taken care of, and money is sent to Rome for the son to be decently supported. With that the book ends.

Now, you might expect a bigger book, a grander scale of writing, a more epic back-

ground. But the very low degree of excitement in the book is significant. There is in rhetoric the phrase, "argument out of silence," *argumentum ex silentio*. We sometimes may derive much from what the author does not say. The very lack of drama, except perhaps for that one scene when Tom refuses Ralph Hopkins' offer, has considerable significance. It is noticeable, for example, that there is no radicalism in the book. When there is mockery of the men at the top, it is in a tone of habitual cynicism. But there is no bitterness and no rebellion.

All that has faded. The break in the stock market is old history. The tragic suicides took place a generation ago. So, too, the ethical wildness of post-War I is gone. Tom had lived in Rome with his Maria at a time when they both felt the world was coming to an end; a child was born of their union; and he and his wife agree that it is a moral responsibility, and the child is being taken care of properly and decently. Such a resolution and such a responsibility would have been improbable in a novel during the jazz era. Neither political rebelliousness nor moral radicalism is to be found in this novel.

Yet there is something significant and new. The author, I am sure, is conscious of it, by his dramatic climb to that moment in the story. What is essential in the book is clearly the conversation between Tom and Mr. Hopkins, who wanted to make him a great business man—and Tom's refusal. That is a pictorial description of a drastic change of climate in the life of American youth, which may, if it endures, be as significant for the American future as was the change in the moral climate that came as the result of World War I. Something has definitely changed in the attitude of the postwar generation. Only in a vague sense is it moral. Primarily, it is a change of will.

The generations two or three decades ago,

Again CARNEGIE MAGAZINE is privileged to bring its readers four reviews of new books, in shortened form, derived from the series given each autumn for the public at Temple Rodef Shalom by Rabbi Freehof.

and from there back to the beginning of the republic, were characterized by a definite dynamism. A unique characterization of America was its youthfulness, its desire to progress. The presence of the West with its uncut forests and endless prairies and mountains containing wealth, and the golden shores of the Pacific that stretched before the American people, for a whole century instilled into our nation a vital sense of futurity. America was the nation of people who always believed in starting all over again; that tomorrow can be better than yesterday; next year, better than last year. Achievement, progress, climbing, great success, was the mood of American life, although this, too, had its tragedies and disillusion.

It made this country great, even if it were, at times, a disillusion. Of course ambition was not an American monopoly. Every youth, everywhere, is naturally ambitious; it's a sort of carrot that Nature holds before us to lure us under the burdens of maturity. "We're going to be great! We're going to do unique things!" It is almost a biological mood that Nature implants in adolescence everywhere. Then we move into the prosaic realism of middle age and struggle on under its tasks.

But in America youth seems to last a few years longer and adds, say, four more years of youthful ambition to every American life. Thus we have a vast reservoir of creative energy that Europe lacks. It is this vitality of longer youthfulness that has given America its dynamism and has made it the country that has produced the greatest material progress of all the countries in the world. This is not to be scorned. It is not merely a gadget gain that there is a smaller percentage of old women in America who have to get on their knees and scrub floors, or who have to rub clothes over the heavy washtubs. It is a moral benefit that comes from the material progress, because youthful ambition seems to last

longer in this country than in other lands.

But what has now happened to us is that this essential dynamism has ebbed. There is less ambition in the postwar generation than in preceding generations. They do not want to fly high. They want security. They would rather have security than opportunity. In a sense it is a pity, but also it is understandable. In the past there was always the West, as a reality or as a symbol of a limitless future. But with what does the future beckon now? The present generation, in the age of the atom and hydrogen bombs, has a future that repels instead of a future that attracts. Therefore there is less eagerness to reach the future and less drive to achieve. For the first time we have a young generation in whom drive and ambition have been set aside in an unsafe, unpredictable world.

They are not a foolish generation either, since this is a special era. The world has come to the state of mind to which progress, for the first time, is not attractive. This is now part of the world atmosphere. Until recently, every step in science seemed to be a step toward human happiness. But now it seems terrible that there should be further progress in the development along certain nuclear lines.

This mood of just not wanting to be a Ralph Hopkins, that it is not worthwhile giving up your family and their love, and your happiness and your health because you are driven to achieve, this mood is not only understandable, it may even be useful while it lasts. It can be employed to the whole world's advantage. It may well be that this preference for safety, for security rather than opportunity, is the mood upon which a wise and patient statesmanship will be able to build an enduring world peace. When the world is in the mood of adventure, when the nations yearn to take great risks for fancied glory—at such a time peace can never be organized. But in this period of diminuendo,

of the calming down, of the dying down of the fires, when people want just to be safe, it is during this time that commitments may be obtained and world peace, if we are fortunate, may be established.

Thus, Sloan Wilson, in his easy-reading novel, has given the first clear insight into a vital change in American mood. The change is clear enough. It is no longer the desire for a fleet of Cadillacs, for two or three mansions or yachts. Rather, the desire is just for a middle-class house, a middle-priced car, a decently happy family, to be "the man in the gray flannel suit."

MAXIM KAROLIK COLLECTION

A CAREFULLY selected cross section of American painting from 1815 to 1865 will be on view in the second-floor galleries of the Department of Fine Arts from January 15 to February 12, lent by Maxim Karolik, of Newport, Rhode Island.

The collection, formed by Mr. Karolik and the late Mrs. Martha Codman Karolik, was inspired by their conviction that the period between the end of the War of 1812 and the Civil War produced work of greater variety and artistic merit than has been generally accepted. The results of their pioneering activity may be seen in this exhibit of 50 paintings by 41 artists, all acquired since 1949.

Mr. Karolik has stated his purpose in making this collection, as follows: "To show what happened in this country in the art of painting in the period of half a century—from 1815 to 1865—and to show the beginning and the growth of American landscape and genre painting." Among the artists are Washington Allston, Albert Bierstadt, Thomas Birch, George Loring Brown, Charles Deas, Thomas Doughty, Seth Eastman, Martin J. Heade, Thomas Hicks, Eastman Johnson, John F. Kensett, Fitz Hugh Lane, William M. Prior, and George Tirrell.

THE LAST PRIZE

(Continued from page 11)

herons—it may be concluded that public taste is not adverse to a considerable degree of abstraction.

Like several other paintings in the INTERNATIONAL, Lewis' picture reflects an interest in oriental art, especially traditional Japanese modes of expression. Even its abstraction from nature does not derive from European prototypes or tendencies. And this may partly explain why it does not offend those who are still resisting occidental simplifications.

Norman Lewis, the author of this canvas, was born in New York City in 1909. He studied sculpture under Augusta Savage in 1932 and painting with Arthur Young, Nathaniel Dirk, and Vaclav Vytlacil. He teaches in New York high schools, and is a well-known exhibitor whose art has been shown in Europe as well as in his own country.

Those who have good memories as well as some experience with previous INTERNATIONALS in Pittsburgh may be interested to consider this current honor in comparison with eighteen previous winners, which were as follows:

1924	MALCOLM PARCELL	Portrait of My Mother
1925	MALCOLM PARCELL	Portrait Group
1926	LEOPOLD SEYFFERT	Rose and Silver
1927	GARI MELCHERS	The Hunters
1928	EDMUND C. TARBELL	Margery and Little Edmund
1929	JAMES CHAPIN	Emmet, George, and Ella Marvin
1930	LEOPOLD SEYFFERT	Portrait of Marion Eckhart
1931	ALESSANDRO POMI	Susanna
1933	DANIEL GARBER	Mother and Son
1934	FREDERICK J. WAUGH	Tropic Seas
1935	FREDERICK J. WAUGH	Ante Meridian
1936	FREDERICK J. WAUGH	The Big Water
1937	FREDERICK J. WAUGH	Meridian
1938	FREDERICK J. WAUGH	Pounding Surf
1939	LUIGI LUCIONI	Ethel Waters
1950	PETER BLUME	The Rock
1952	BRIAN CONNELLY	The Spectrum, a Painting in Four Acts



THE BEST-KNOWN NAME IN GLASS . . . MEANS MORE THAN GLASS

Glass manufacturing was the New World's first industry. It started in Jamestown in 1608, but so complicated are the problems of glass manufacture that it was nearly 300 years before the industry could claim real success.

In 1883 the Pittsburgh Plate Glass Company was organized. Sound financial policy and, equally important, a practical and much-needed distribution system made Pittsburgh the first commercially-successful plate glass producer in America.

Today, its Glass Division operates seven glass plants, three fabricating plants, and two specialty plants. A new plate glass plant is under construction and plans are being completed for a new window glass plant. Its Fiber Glass Division produces strand and superfine fiber. Its products include plate and window glass and a wide range of processed and fabricated flat and bent glass products.

But the name "Pittsburgh" has grown to mean more than glass. Pittsburgh paints and brushes rank among the best in their fields. The company also produces an outstanding line of Selectron plastics. Pittsburgh chemical research carried on through its wholly-owned subsidiary, Columbia-Southern Chemical Corporation, has developed many new products and manufacturing processes.

Yes, the best-known name in glass also means . . . Paints, Plastics, Brushes, Chemicals, and Fiber Glass.



PITTSBURGH PLATE GLASS COMPANY

ST. EDMUND IN PITTSBURGH

HUGH S. CLARK

ST. EDMUND, king and martyr, has inspired many works of art in English churches, both in stained glass and sculpture. Representations appear in the Chapel of Henry VII in Westminster Abbey and in the cathedrals of Winchester, Wells, and Bristol. Now the heroic figure of St. Edmund turns up again in Squirrel Hill in the splendid contemporary sculpture by Eliza Miller, adorning the front of the church school on Darlington Road, next the Church of the Redeemer.



ST. EDMUND BY ELIZA MILLER
Stainless steel and bronze, welded. At the Academy.

Formerly known as Ascension Academy, this young school was founded in 1947 by Bishop Wilburn C. Campbell, then rector of the Church of the Ascension. So vigorous was the life and growth of the school that it soon outgrew its original location on Ellsworth Avenue and spread into temporary quarters in the Redeemer parish house, while the nursery and kindergarten were housed in the present Calvary Church rectory. All this took place in 1951.

In this, and the succeeding two years, much happened. Robert Izod, organist and choirmaster at the Church of the Redeemer, was named headmaster of the school; Mrs. Edmund W. Mudge generously gave to the school a deed for the property adjoining the Church of the Redeemer; Architect John Pekruhn was commissioned to design a building to house the whole school; a campaign was launched for the school building fund; and the school was approved as an organization of the Episcopal diocese of Pittsburgh. It should be added that the student body is non-sectarian, and the board of trustees is interdenominational under the chairmanship of Richard B. Tucker, Jr.

About this time the trustees and parents of the students voted to change the name of the school, not with any wish to disassociate it from former close ties with the Church of the Ascension, but rather to adopt a name free and independent of any Pittsburgh church. It was decided to choose a name of a person and not of a theological doctrine as being more suitable. St. Edmund

(Turn to page 21)

FROM DAWN TO DUSK

OTTMAR F. VON FUEHRER

It is hard to imagine bygone days when a whole town would be excited over the visit of a circus, a magician, a minstrel show, or even the traveling medicine man with his panaceas for everything from headache to old age. Perhaps one of the most popular types of entertainment in that long-ago period was the moving panorama or tableau painting, as it was often called, occasionally seen in American and also European towns of the last century.

These large canvases, depicting remote scenic spots or historical events, were unrolled on rather primitive devices before highly excited and most appreciative audiences. A script was read with the performance, so that the rolling canvas with its accompaniment of the human voice was practically the forerunner of today's sound motion pictures.

Particularly well known were the moving panoramas painted around 1870 by John Stevens, a house-painter from Rochester, Minnesota. One of his, *The Sioux Wars of Minnesota*, became a very famous performance. An added attraction to his show was a group of singers, and at times even an orchestra. The Sioux War panel was especially thrilling because Stevens had some people who had been at the scene of the Sioux massacres narrate the bloodcurdling story. This canvas, which caused a sensation in its own day, changed hands several times after the artist's death. Finally it became the possession of the Minnesota Historical Society in St. Paul.

A few years ago this moving canvas was lent to the Corcoran Gallery in Washington, D. C., where it was performed to an interested audience. Not only the original old handcranks and rollers were used, but also

the original accompanying script was read.

This performance was described and illustrated in the February, 1951, issue of *The National Geographic Magazine*, and this article confirmed our former director, Wallace Richards, in his idea that the Carnegie Museum should also have a moving panorama. It was planned for Fossil Mammal Hall, to depict not only the major phases of mammalian life through sixty million years, but particularly to take as its main theme the development of the horse from its earliest form to that when it became extinct on this continent. (Our domesticated horses of today and the wild ones roaming in the western part of the United States are descendants from the horses that the Spaniards, and later others, brought to this continent. There were no horses here when the Spaniards arrived.)

Naturally we have been able to improve on the moving panorama of the last century, with its squeaky hand cranks, rollers, and other inadequate mechanism. Our equipment consists of two oval steel tracks, one running along the top and the other along the bottom of a ten-foot-wide canvas. On each end, within the steel tracks, are two large drums, 380 wheels, a chain, and a small motor. The ninety-foot canvas, attached and stretched between the wheels, rolls around on the

Colorful and scientifically exact murals painted by Mr. von Fuehrer, including *Tyrannosaurus Rex*, *Pennsylvania 20,000 Years Ago*, and the *Rancho La Brea Tar Pit*, are outstanding features at Carnegie Museum, and the Panoroll here discussed is natural development of this previous work. Mr. von Fuehrer is chief staff artist at the Museum. The son of a Viennese museum curator, he traveled in Europe last summer and lectured to audiences in Vienna, Salzburg, Freiburg, Kassel, and Karlsruhe on "Natural-History Museums in the United States."



THE ARTIST PAINTING EOCENE LIFE WITH ITS SEMITROPICAL VEGETATION

tracks and the drums, aided by the motor-driven chain. After the successful construction and the smooth rolling of the canvas, it was christened: The Panoroll.

Since childhood days and long before I started to become an illustrator and mural-painter of extinct animals, I admired the paintings of Charles Knight, dean of American artists in portrayal of animals of the past. At first, when looking at his paintings, it seemed to me an impossible task to reconstruct an animal from just its skeleton. It is not so difficult, however, as it appears. A silhouette of any object is rather revealing, be it mammal, bird, or human. One could recognize any friend or acquaintance from a shadow picture, in spite of the absence of depth or color. This fact can be applied also

in the portrayal of extinct animals. When an outline is made over the profile of the drawing or photograph of a skeleton, it will give an accurate and close resemblance to the animal, somewhat similar to the effect when one looks at an animal in silhouette against a strong light.

Our knowledge of the extinct mammals is based exclusively on their fossil remains. From these fossil bones and reconstructed skeletons we can tell the story of these animals in terms of science, but the artist who reconstructs them in clay or on canvas must also study the remains of these creatures. Equally important is to observe and record the appearance and behavior of present-day animals that are related to, or at least resemble, the extinct ones. The artist must make

anatomical studies of such animals with respect to their skeleton, muscles, skin, and hair.

In addition to many afternoons in our own Highland Park Zoo, I spent over a month in the National Zoological Garden in Washington, D. C., some time in the Zoological Garden in the Bronx, New York City, and in the Tierpark at Helabronn, near Munich, Germany. At the last I particularly studied the large herd of Asiatic wild horses (Przewalski) and the sensational rebred Tarpans.

Beside the animals, plant fossils had to be examined for each particular period and again compared with the present-day flora, to portray the landscapes of the various periods in which these extinct animals lived. For the artist a prehistoric landscape is much easier to visualize than the animals. After all, the same laws and phenomena of nature existed then as do now—sunlight, shadows, reflection in pools, rushing streams, blue or stormy skies, lightning, and rainbows.

For reference it was necessary to study all available illustrations portraying the extinct animals and landscapes around them, and to read as much as possible on the subject. The scientist can help the artist considerably with advice and guidance, but the artist himself has to be well acquainted with his subject.

When we observe domestic animals or the wild ones in their natural habitats, we rarely think or wonder who their ancestors were a thousand, a hundred thousand, least of all millions of years ago. Yet here, in our Panorama, we are dealing with time and space that is fathomable and comprehensible. It is known that light travels six trillion miles a year, at the rate of one hundred and eighty-six thousand miles per second. The light from the sun reaches us in eight minutes, yet it is over ninety million miles distant from us. Our solar system moves around the Milky Way in two hundred million years, but the

Milky Way is only one of many countless galaxies that are exploding, expanding, and speeding into the endless universe. When we think of these astronomical problems of expansion in time and space, our story of the horse with its mere sixty million years of development, and with visible remains of the fossils on hand, becomes more comprehensible.

The story of the horse through these millions of years is an interesting one, particularly since such rich fossil material of all different phases of the horse's development exists in this country. Just the same, it is complicated, involved, and sometimes not quite clear. The various stages of the horse often overlapped in their developments from one epoch into the next. Sometimes more advanced forms have appeared when earlier ones were still in existence. The line of descent has not always been direct and clearly discernible. Our present-day horse is actually not in direct line with its first forebear, but rather an offspring of a side branch of the first "dawn horse."

We have simplified the sequence of ancestry in our painting. The first horselike animal was the so-called dawn horse. It existed about sixty million years ago and inhabited, according to fossil finds, the western part of our country. Small in stature, the size of a present-day whippet, it was really somewhat doglike, at least in outer appearance. It had a small head with large eye in the middle of its head, a humped back, four toes on its front foot, and three on its back foot. The skeleton shows the artist quite well what the animal might have looked like. Its color of skin and hair is entirely the artist's decision. In this case he considers that the animal lived in semitropical swamp and forest habitat, and most likely for protection against predators, such as catlike and doglike animals, took on some of the colors of the surroundings.

In its second major phase in the Oligocene

Epoch, the horse changed considerably. It is now larger, loses one toe on its front foot, and becomes more horselike. We do not know at these early stages whether it had a mane; however, it is fair to assume that the beginning of one might have already been there.

The Oligocene is followed by the Miocene Epoch, when our horse appears rather like a small pony. With grasses present at that time, the horse is changing from a browser into a grazer. It developed stronger jaws with change of denture, and the middle toe is turning into a hoof, with two toes still attached but already off the ground. Its habitat is also changing to a more open terrain.

The horse of the following epoch, the Pliocene, changes even more. It is now of a considerable size, somewhat like a zebra. It has a typical horse's head with a strong jaw, eyes high up in the forehead, and no doubt the short mane so typical of the later wild horses. It might have had stripes, but even artistic license will not permit such a commitment.

The final stage was reached by the horse in the Pleistocene Epoch. It occurred in great numbers in the western part of our continent, where for unknown reasons it also became extinct.

Many other animals have been included in each period and setting of our painting. Of course a panel rolling before the viewer for fifteen minutes, and allowing only 10 x 15 feet of space for each of the six periods, of which some cover twenty million years, could not show everything that went on in that immense expanse of time. It would be very difficult indeed to show on a panel even what has happened in one small place in a single afternoon or season—and here we are dealing with millions of years! In the Panorama we confined ourselves to mammals that have lived mostly in open terrain, but of course there were many other kinds of

habitat, from deep swamp to mountain peak, not shown in our painting.

I have painted the story of the horse as if its life were unfolding on a scroll, beginning and ending in the timeless space of our universe. We are facing north in the painting, and in the beginning of the scroll the moon is going down and the sun is rising in the east, to our right. As the picture moves, so travels the sun in our landscape. About midway in the Miocene Epoch we reach high noon, and at the end of the Pleistocene Epoch we see a western sunset. With the sun going down, the moon is coming up, and so our story disappears in the same vastness of the universe from whence it came—from dawn to dusk, from sunrise to sunset, through sixty millions of years.

ST. EDMUND

(Continued from page 17)

was picked because it called to mind the name of Edmund Mudge, in whose memory the school's land was given, and also because St. Edmund was a church saint worthy of any boy's emulation.

St. Edmund, king and martyr, lived in the ninth century and was chosen King of East Anglia at the age of fifteen. In his brief but eventful life he ruled in the hearts of his people and was loved alike for his justice and gentleness. When his kingdom was invaded by the Danish hordes, Edmund faced a martyr's death rather than betray his Christian subjects. He was shot full of arrows and beheaded by his enemies. Thereafter he was known as the king who would not compromise, and thus is a "natural" for the patron saint of boys.

Dr. Clark has been rector of the Church of the Redeemer since 1936, and serves as chaplain to the Epis- copal students at Carnegie Tech as well as at St. Edmund's.



A TYPICAL SCENE OF THE MIocene EPOCH ON THE PANOROLL, SHOWING FLORA AND FAUNA

<i>Dinohyus</i>	<i>Solenodon</i>	<i>Seridensinus</i>	<i>Moropus</i>	<i>Diceratherium</i>
<i>Hyracotherium</i>	<i>Stenomylus</i>	<i>Promerycochcerus</i>	<i>Promerycochcerus</i>	
<i>Hyracotherium</i>			<i>Merychippus</i>	

A NINETY-FOOT REVOLVING MURAL

J. LEROY KAY

IN the Hall of Fossil Mammals at Carnegie Museum may be seen a ninety-foot revolving mural painted by the Museum's chief staff artist, Ottmar F. von Fuehrer. This Panoroll, as it has been officially named, depicts the life of that part of the earth's history known as the Cenozoic Era, or Age of Mammals. It really consists of six integrated paintings, each dealing with a separate geological unit, or epoch, and records sixty million years of the earth's history.

The six epochs, beginning with the most ancient, are the Paleocene, Eocene, Oligocene, Miocene, Pliocene, and Pleistocene. Epochs are characterized by groups of animals and plants indicative of the ecological conditions prevalent at the time. For the most part, the animals shown on the Panoroll are either those exhibited in the Hall of Fossil Mammals or represented in the study collection of Carnegie Museum, with the addition of a few key fossils known by specimens in other museums. The horse in its evolving forms, of course, is the central figure throughout the Panoroll.

An hourglass scroll at the right, at the beginning of the mural, represents the time before the Cenozoic Era, and another at the end represents the present. On the beginning scroll a painting of *Tyrannosaurus* symbolizes the close of the Mesozoic Era, or Age of Reptiles, and on the final scroll Man and a proboscidean symbolize the present, or the time in the Earth's history dominated by Man.

Dr. Kay, curator of fossil vertebrates at Carnegie Museum, is in charge of the Hall of Fossil Mammals, as well as Dinosaur Hall. Outstanding paleontological reconstructions are here displayed, comprising fossil bones, many of which have been unearthed during Dr. Kay's summer field work for the Museum the past forty years.

The preceding article by Mr. von Fuehrer outlines the story of the Panoroll and briefly describes the development of its central figure, the horse. Here we should like to discuss the other figures in the unfolding story—that is, the other animals that lived in each of the six epochs illustrated on the Panoroll. Limitations of space, however, compel us to confine our description to one epoch, and we have selected the Miocene because the Museum's collection of fossils from the Miocene is outstanding; in fact, Miocene fossils to be viewed in many other museums of this country and abroad have been supplied, by exchange, from finds made by Carnegie Museum.

The Miocene Epoch, considered broadly from a study of fossil flora found in North America and Europe, evidently enjoyed climate a little warmer than that of the present Temperate Zone. In early Miocene time there probably was no land between Europe and America, but from late Miocene time evidence exists proving migration of species, which indicates a connection between the continents. The volcanoes painted in the background of this epoch of the Panoroll are typical of the Miocene in the western half of the United States, where great deposits of wind-blown ash are found.

Many animals of the Miocene Epoch were probably overcome by ash storms, such as the three Promerycochoerids whose skeletons may be seen in the Hall of Fossil Mammals. These were the last of the Oreodonts, a group of hoofed animals, that were so prevalent during Oligocene and lower Miocene times. (Unfortunately, as in all discussion of fossil animals, no common name exists, but only the scientific.) The three Promerycochoerids were found in 1901, in Sioux County, Ne-

braska. They were huddled together, pig-fashion, probably in an effort to keep warm during a severe storm that finally proved too much for them. Their grouping as painted on the Panoroll is based on that in which they were found, and in a nearby case may be seen the group of original fossils embedded in rock, just as they were discovered in Nebraska and shipped to Carnegie Museum.

The most bizarre fossil mammal of the Miocene Epoch is the large Chalicotheres *Moropus*. *Moropus* may be seen in the Hall of Fossil Mammals in half restoration. When the claws of this animal were first found, they were thought to be those of a Giant Ground Sloth. It was not until the Carnegie Museum expedition found complete skeletons at Agate, Nebraska, that the claws were associated with the skeleton.

Three other Perissodactyls, or odd-toed ungulates of the Miocene, are represented on the Panoroll by three animals: *Merychippus*, the Miocene horse; and two rhinoceroses, the two-horned *Diceratherium*, and the river- or marsh-dweller, *Teleoceras*.

The Artiodactyls, or even-toed ungulates, are represented by the giant, piglike Entelodont, *Dinohyus*, the last of the line of these near-relatives of the swine.

Stenomylus, the gazelle-camel represented in the gallery by three skeletons—a male, female, and young—appears on the Panoroll.

A Miocene proboscidean, *Serridentinus*, appears on the Panoroll but not in the Hall.

Two other skeletons of Miocene mammals represented in the Hall are not shown on the Panoroll: *Merychys*, an Oreodont; and the long-necked camel, *Oxydactylus*.

Hyploboneus, the sabre-tooth tiger, also represented in the Hall, is painted on the Panoroll at the base of the trees, and in time existed in the preceding Oligocene Epoch.

One case on exhibition in the Hall has been flippantly labeled, "Fossil Jackpot." It is a

scene from real life, transported from Nebraska to the Museum, and to the uninitiated appears to be an assortment of fossil bones mixed in complete confusion. It was the result of a strong river current that, through eons of time, washed animal bones down its channel until finally a solid pavement of broken bones had been built up. Most of these bones belong to three extinct Miocene genera, all represented by complete skeletons on display in the Hall: these are the rhinoceros *Diceratherium*; the piglike *Dinohyus*; and the horse-headed, bear-clawed *Moropus*. The experienced paleontologist can quickly pick out here a *Moropus* claw, there a *Diceratherium* hoof, and elsewhere a *Dinohyus* jaw.

A visit to the Hall of Fossil Mammals, to examine the assembled fossil skeletons and to watch a showing of the Panoroll with its recorded explanation, will bring fascinating knowledge of this Era covering the sixty million years before Man appeared on the Earth—as well as a glimpse into this comparatively new science, this plunge into the mysteries of the past, called paleontology.

INSTEAD OF JURASSIC

THE caption for the illustration on page 337 of last month's CARNEGIE MAGAZINE should have read: "In this new mural of the Cretaceous Period by Ottmar von Fuehrer, *Pteranodon*, a winged reptile, annoys *Clidastes*, a marine lizard."

ALL-MOZART SUNDAY RECITAL

Lucretia Russell Marracino will play the Mozart *Coronation Concerto* as part of Marshall Bidwell's all-Mozart program in Music Hall on Sunday, January 22, at 4:00 o'clock.

Lois Woolman appeared as guest on Dr. Bidwell's regular Sunday recital January 8, playing Schumann's *A Minor Concerto*.



... in the Kitchen

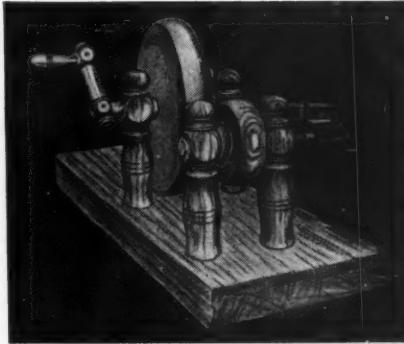
An eccentric fellow with his burlap suit, his bare feet and a cooking pan for a hat, Johnny Appleseed was a welcome visitor. For despite his disheveled appearance, he carried with him a treasure more precious than gold . . . an old sack filled with apple seeds.

Thanks to Johnny and his seeds, there was hardly a farmhouse on the frontier without its orchard and hardly a meal without the apple in some form. There were pies and tarts, dumplings, puddings and "apple pan dowdy". Early in the season, there was a big bowl of golden apple "sass" on every table; then came the crock of spicy apple butter. Sparkling cider was the favorite beverage.

In anticipation of a long, cropless winter, apples were pared, quartered and dried. Apple paring "bees" were festive occasions, with housewives gathering from miles around. Yankee ingenuity, displayed in gadgets like the apple paring machine shown here, lightened the task and allowed time for gossiping and fun.

But probably the most important use for apples was vinegar. No house was without its barrel of cider-turned-to-vinegar; for, though its quality was uncertain, it was the chief means of flavoring and preserving the fruits, vegetables and meats that would lend a bright note to winter dining.

Cider vinegar is still a favorite in the kitchen. Only now it's vinegar by Heinz — jewel-like in clarity, mellow in flavor, always uniform in strength.



*Red Oak Apple Peeler — 1840
National Gallery of Art
Index of American Design*

ART AND NATURE BOOKSHELF

ART TREASURES OF THE PRADO MUSEUM

By HARRY B. WEHLE

FOREWORD BY F. J. SÁNCHEZ CANTÓN,
SUB-DIRECTOR, THE PRADO MUSEUM
Harry N. Abrams, Inc., New York City, 1954
48 pages text (\$12.50)
167 reproductions, 71 in full color
Carnegie Library no. qr708.6 W44

King Ferdinand VI died in 1759, and his half brother, heretofore King of the Sicilies, ascended the throne of Spain at Madrid as Charles III. Although not successful in his foreign policies, the new monarch nevertheless gave his country one of the best domestic rules it ever had. Among his wise endeavors to contribute to the cultural level of his people, Charles III is gratefully remembered for having commissioned Don Juan de Villanueva, Spain's great neoclassic architect, to erect a building intended for a museum of natural science. At one of the capital's most delightful sites, the Paseo del Prado, the edifice now stands. Finished in the nineteenth century, it is impressive in its dimensions, dignity, and the beauty of its classic orders.

When, in November, 1819, Ferdinand VII ordered its doors to be opened, the public, or, as the king put it, his beloved vassals, were shown 311 paintings from the collections of the royal house. Enriched and augmented since, this museum, once meant to be one of natural history, now houses one of the world's noblest art collections known as that of El Museo del Prado, or, better still, simply the Prado.

The earliest publication dealing with the Prado is the catalogue of 1819, a thin paper-bound booklet that has become a collector's item. The latest is the present book by Harry B. Wehle, formerly curator of paintings of the

Metropolitan Museum of Art. The volume, introduced by a stimulating foreword from the pen of Sr. Sánchez Cantón, sub-director of the Prado, consists of three parts, namely, a large chapter on the paintings and the history of the Prado Museum, 167 reproductions, some of which are in color, and, finally, a series of commentaries.

To choose reproductions from the embarrassing wealth of material that confronted the author must surely have been a difficult task. In preparing an anthology of any kind, whether exercising detached objectivity or yielding to personal emotion, one is likely to be haunted by imaginary sins of selection or elimination. Mr. Wehle should feel no regrets, for his pictorial anthology, as could be anticipated from his experience and superior qualifications, is excellent throughout. For some old favorites that might be missed, new ones are likely to crop up. The editors exercised wisdom, too, in having cut down the number of reproductions of individual paintings to present significant detail views of a good number of the paintings shown. In one instance there are five plates with such detail views. The monographs or commentaries on each of the paintings reproduced should prove of invaluable help to the reader. Ever so many are real gems in scholarly presentation of relevant factors on painter and painting as well as in their sensitive esthetic appreciation.

Of absorbing interest is the main text, for the collection of the Prado, as it unfolds itself gallery after gallery, did not come about just by chance. Spiritual forces, creative human energies and genius, the powers of destiny were all at work in shaping it.

Inasmuch as the history of the Prado is indissolubly linked with the history of Spain and as its vast collections were formed by her

kings since the time of the Renaissance, the author appropriately adduces, against a general historical background, the particular part played by each ruler in the formation of this treasure. Simultaneously, Mr. Wehle deals with periods of art history in relation to periods of political history, paying due regard to the significance of great individual masters as they appear on the scene. Mr. Wehle's vivid and urbane account will, then, not only attract as a story in itself, but provide, too, a clearer understanding of how this array of priceless panels and canvases by Spanish, Flemish, Italian artists and those of other nationalities became integrated into its present total.

Two dynasties were active in amassing the Prado's staggering pictorial wealth: the Spanish lines of Hapsburg and of Bourbon monarchs. Son of a Spanish mother, but his father an Austrian prince, Charles I of Spain, elected by the diet in 1510 Emperor Charles V of the Holy Roman Empire of the German Nation, is the first in the lineage of Hapsburgs on a Spanish throne.

Art-collecting and art patronage were already established in his family on both sides. Notwithstanding military expeditions, constant travels, and the burden of the administration of her realm, Charles' grandmother, Isabel of Castile, with her leanings to the humanities and arts, stands out as a true princess of the Renaissance. On his father's side, there was his devoted aunt Margaret, regent of The Netherlands, who bequeathed to Charles a noteworthy collection that included superb examples by the great Flemish artists of the fifteenth century.

Yet, Charles' attitude toward art must have been freshly ignited when in 1532 he met Titian in northern Italy. Titian was made court painter and a knight of the Empire. Several beautiful canvases by the great Venetian in the Prado attest to the relationship

that ensued between monarch and artist. Among these are the posthumous portrait of Charles' wife, the lovely Isabel of Portugal, and the Emperor's own likeness, known as *Charles at the Battle of Muehlberg*, a painting hardly surpassed as a human document, surely never surpassed as an equestrian portrait.

Charles' son and successor Philip II scrupulously, almost pedantically, fulfilling the manifold duties imposed upon him by his office, was yet a monarch fanatically devoted to the arts. For himself and for Spain, he set up an unprecedented architectural monument of modern times in the famous monastery-palace at El Escorial. Executed on a gigantic scale with mathematical perfection, that building, in its ascetic bareness of ornament, deserved from Don Miguel de Unamuno the epithet of "the greatest nude in architecture." From here Philip ruled over Spain and her dominions in Europe, Africa, Asia, and America. Philip started to collect when still a prince and continued throughout his life. Devout as he was, he obtained from Titian not only religious paintings but also gorgeous compositions of mythological subjects. Some of these are preserved in the Prado, while others, through diverse vicissitudes, are now in foreign countries. Thus, for instance, America's finest Titian, *The Rape of Europa*, originally owned by Philip and presented by a later king to a French prince, found its way eventually into the Isabella Stewart Gardner museum at Boston.

It is not surprising, that, through their overlordship of The Netherlands, Spain and the Spanish crown should have been rich in paintings from those countries. Among the northern artists, Patinir with his naturalistically romantic landscape settings must have enchanted the King, but it was the lot of Hieronymus Bosch to exert an inescapable fascination upon Philip. Bosch's *Haywagon*, the phantasmagorical *Garden of Delights*, and

the *Adoration of the Magi*—his masterpiece, as it has been called—can now be admired in the Prado. These are only a few illustrations, very few indeed, of Philip's ardor, which, however, was not bequeathed to his son Philip III.

Yet with his grandson Philip IV, art patronage returned with judgment and splendor. Two of the greatest masters are linked with this sovereign. One was Velazquez, "the painter without a flaw," who was in the service of the King from the age of about twenty-three until his death at the age of sixty-one. The other is Rubens, cavalier and humanist, who arrived in 1628 in Madrid for a second time on a diplomatic mission. The contact between King and painter, as Mr. Wehle points out, was responsible in the coming years for 112 paintings by that artist, of which those that have survived fire and war contribute to the Prado's present-day glory. Philip IV, too, bought freely abroad. On his last trip to Italy, in 1650-51, Velazquez acquired, among others, canvases by Tintoretto and Veronese. Paintings were purchased from the estate of Rubens, who himself was a collector of note, and in England the Spanish ambassador made important acquisitions for his master when the Commonwealth disposed of the collection owned by Charles I. At Rome, Philip's ambassador commissioned Claude Lorrain to do a wonderful set of lyrical compositions.

Since Charles II, feeble-bodied and feeble-minded son of Philip IV, left no heir, the crown went in 1700 to a grandson of Louis XIV of France. Philip V, first of Spain's Bourbons, and his second queen, the energetic Isabel Farnese, delighted in augmenting the treasure they had found. Paintings by Poussin, Murillo, Watteau—again, to mention only a few—joined the other masters.

Charles IV, who succeeded his father, Charles III, in 1788, formed a distinguished collection, although not on so lavish a scale as some of his predecessors. Yet it is to the



PHILIP IV (about 1628)
BY DIEGO RODRIGUEZ DE SILVA Y VELAZQUEZ (1599-1660)

everlasting credit of this inoffensive monarch as well as to that of his offensive consort, Maria Luisa de Parma, that they preferred the uncompromising genius of their court painter, Francisco de Goya, to the kind of facile or academic artists who, experienced in the ways of the world, would succeed in obtaining patronage.

Ferdinand VII, son of Charles IV, who is judged harshly by history, for he was a traitorous son and a tyrant without scruples, showed genuine respect for art. Encouraged by his wife, Maria Isabel of Braganza, he—as

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said before—is the founder of the Prado, whose collection under his daughter Isabel II was increased to over two thousand paintings. With her dethronement in 1868, patronage and financial responsibility passed to the state. Despite this change—and although a quantity of paintings, including some of the Grecos, came from suppressed religious houses, and also many noteworthy additions entered during our century by way of gift or purchase—the Prado will live on as a royal collection formed on a regal scale.

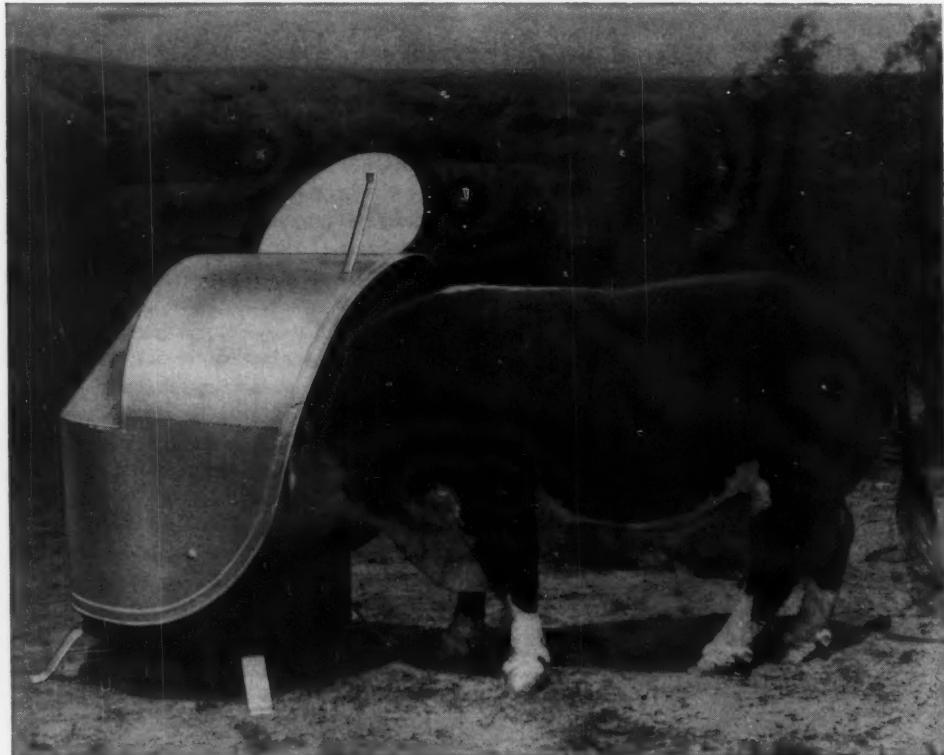


SARASATE (1884)

BY JAMES ABBOTT MCNEILL WHISTLER (1834-1903)
Carnegie Institute Permanent Collection
This portrait of a great Spanish virtuoso was strongly influenced, as can be seen, by another Spaniard of fame.

The Prado, more than a magnificent picture gallery is, in every sense of its official title, a true National Museum of Painting. Its very strength derives to a large measure from the genius of the homeland. The Spanish kings, as has been seen, bought both old masters and contemporary art. While cultivating foreign masters, their eyes were set, too, on the art of native sons. There is, then, that grave and sustaining chorus formed by the court painters of the School of Madrid culminating in Velazquez and Goya, by Ribera, Zurbarán, Murillo, and other men. It is a chorus that echoes throughout the building and gives it its distinct spiritual note. If it has been pointed out that the Prado is "an unbalanced museum," Mr. Wehle—and before him, the English scholar Enriqueta Harris—state that they "frankly rejoice in this splendid but irregular collection." So do we. Leaving the doors of the Prado's magic atmosphere, there is hardly room for regret that several schools or even numerous artists might not be represented. With mind and emotion stirred to greater heights, or to greater depths, one here becomes aware anew of man's inexhaustible creative power. In the process of meeting superiority and, above all, of acknowledging superiority, man becomes launched upon the discovery of potentials within himself.

This must have been the experience of even an artist of the stature of Rubens, who did not disdain when at Madrid to copy some of the King's paintings by the older Titian. It was that of Goya, who paid homage to Velazquez in his etchings after canvases by that great master. And the transport from humbleness to awakening of creative powers of enjoyment is bound to be everyman's thrilling experience in that historic house with its paintings of a quality difficult to match. What more could be asked from an art museum than to provide knowledge leading to a quickening of the faculties? Indeed, the Prado—to



Whirling Cattle Feeders

These feeders look like industrial ventilators. But actually, their purpose is to protect livestock mineral feeds (a flour-like substance) from wind and rain, yet keep the feed always accessible to the animal. The feeder is made from USS Steel Sheets.



U N I T E D S T A T E S S T E E L

borrow a phrase from Sr. Sánchez Cantón, though out of context—is a museum of "functional vitality."

In this respect, its history extends beyond its walls. From the latter part of the nineteenth to our century, a host of artists there found their inspiration. A significant instance is furnished in the French Impressionist Edouard Manet, or decades later, in the Spaniard Ignacio Zuloaga, whose art, without detriment to his originality, is steeped in the tradition of the Prado. For further proof, we do not have to go far afield. Carnegie Institute's *Portrait of a Boy* by John Singer Sargent, with its forcefully modeled flesh tones against varying hues of black, or Whistler's portrait of Don Pablo Sarasate, with the figure of the famous violin virtuoso looming within a hull of aerial space, attest, too, to that profound influence exerted by Velazquez, the Spanish prince of painters, upon younger generations.

—HERBERT WEISSBERGER

ANCIENT EDUCATION

By WILLIAM A. SMITH

Philosophical Library, New York City, 1955

XII plus 309 pages (\$3.75)

Carnegie Library no. 370.9 \$664

WHATEVER doubts modern educational thinking may have concerning the wisdom of orienting teaching in the direction of training specialists, there is no doubt in the mind of the author of this book that formal education began solely to teach specialists.

William A. Smith says the neolithic revolution—the time when man first began to control his own food supply—produced surplus food stuffs that enabled people to gather in large numbers in urban environments, and that the surplus of both food and people demanded administration. This administration in turn demanded records. Somebody had to keep those records, and it was necessary that they always be kept in the same style so that

others could consult them. To standardize these records, formal schools were developed.

Smith surveys seven ancient civilizations: Mesopotamian, Egyptian, Indian (of India, not America), Chinese, Greek, Roman, and Hebrew. In all these he finds signs of the beginnings of formal education as we know it today: pupils, teachers, curriculum, and social recognition and acceptance. He makes a distinction between family responsibility for the process of teaching as it occurs among modern (and by inference ancient) primitives, and the formal society responsibility of more advanced peoples.

In his discussion of the seven ancient civilizations, Smith endears himself to anthropologists by making much of the fact that education is conditioned by the particular culture concerned and is dedicated to preserving and advancing the values accepted by the culture involved. He points out that as the pattern of a culture changes, so do its values, and, accordingly, its educational procedure.

He precedes his actual discussion of education in each society with a capsule history of the important economic, political, and religious events in that society. These capsule histories are very good indeed, models of conciseness and clarity. I think some of the material in Smith's discussion of education in the high-ancient civilizations would have been clearer had it been preceded by his survey of modern-primitive-society methods.

Three of the ancient civilizations—Mesopotamian, Egyptian, and Chinese—educated people for state service. The ideal held before the scholar was that eventually he would take his place in the administrative machinery of his country. In all three countries crafts were taught under the supervision of guilds by an apprentice system, and there were special schools available for special groups at courts and in military establishments. But none of these was the basic experiment in

education that Smith thinks led to formal schooling as we know it.

At temples in both Mesopotamia and Egypt Smith finds the basic experiments in the establishment of training schools for scribes and clerks. Training was closely integrated with the religious patterns of those countries. This was logical since in Mesopotamia the secular ruler ruled as trustee for the gods, and in Egypt the ruler was a god and ruled as a god. Administration was quasi-religious in theory, no matter how secular in operation. Reading, writing, and counting composed the curriculum for the great majority of scholars in these temple schools. It was also possible for persons not attending the schools to receive private instruction of the same type from graduate scribes at private expense. Higher studies were pursued in both lands in mathematics, medicine, geography, but concept of the university did not emerge.

China was a secular country. Education was overwhelmingly secular in theory and relied to a very large extent on the Chinese classics, in particular the Confucian, as the repository of all wisdom and knowledge dealing with problems of state. Scholars noted for their understanding of the classics gathered about them groups of students who learned sufficient to be accepted for state service. This way of teaching and learning was in vogue as an established procedure by the third century B.C. By the time of Christ, government examinations based on knowledge of the classics were instituted with state posts as reward. At first sporadic in nature, these examinations were finally rigidly institutionalized and continued until 1905 to be the accepted civil-service examinations in China. The government provided facilities where learned men could teach brilliant scholars who could get to the facilities, and there were special schools for state employees training for specific posts, but beyond that

China did not go. No real public-school system was ever installed. Curriculum emphasis on Confucian ethics may have been largely responsible for the remarkable coherence and stability of Chinese culture.

Two ancient civilizations, the Indian and the Hebrew, were religious in their educational approach. The Indian teaching was unique in that it began without written forms, since the Sacred Scriptures existed only in oral form, and, despite the fact that they were both content and guide in formal education, were obviously not available for reading and copying. In both the Indian and Hebrew cultures religious dicta determined the direction, structure, and mode of both public and private life.

In India, except for craft education on an apprentice basis—and by "craft" is included warfare—and enough reading, writing, and counting for civil service, education was initially restricted to the Brahmanic, the priestly caste, and fathers taught their sons the elements of sacred knowledge. Learned men were encouraged to gather students for instruction on an individual basis; the curriculum included the Vedas and such necessities as phonetics, meter, grammar, etymology, astronomy, and ceremony in preparation for proper ritual existence. No formal schools were established in early India. With the development of Buddhism and the monastic system, actual university centers for the prosecution of higher learning came to be. All in all, however, Indian education remained on master-disciple basis without civil control.

Because of the Hebrew conviction that their Sacred Scriptures were a guide to life on earth, Hebrew learning was dedicated largely to interpreting religious directives in the light of ordinary living. Initially it was conducted by the family or in the master-disciple fashion, but after the exile in the sixth century B.C., the synagogue became the

center of learning. By the first century B.C., free institutions were established in Jerusalem for the use of outstanding scholars in their study and expounding of the law. In the first century A.D., free compulsory elementary schools were established in all communities having sufficient Jews to warrant the effort. This is the first compulsory elementary-school system in history, the first conscious effort by any society to ground members in values.

In Greece education was secular in content and orientation. The pattern of the family giving basic education and important scholars gathering advanced students around them was repeated here. The state entered the scene in Sparta by the late seventh century B.C., when all boys (and here it differed from the Hebrew compulsory system, which included all Jews) entered compulsory schools, which were to be their real homes for years to come, and were dedicated to producing the warrior-citizen that was the Spartan ideal.

In Athens, too, the goal of education was the production of a citizen, but the Athenian citizen was taught men were the masters of law, not its slaves, and this was quite different from primitive and Spartan ideals. By the middle of the fifth century in Athens a special body of wandering teachers, the sophists, were accepted as an institution providing education beyond the elements the state required all Athenians to give their sons: gymnastics, letters, and music. The Athenian also had the public gymnasium as a center of more advanced education, for here scholars held forth on their subjects to such hearers as they could charm. Athens itself with its buildings, its public courts, and its assemblies, was an education to the alert.

Systematic schools for tutoring specialists for higher governmental administrative posts than a man could prepare for by ordinary tutoring evolved. In the fourth century B.C., came the philosophical schools established by

such men as Socrates, Plato, Aristotle, Zeno, and the followers of Epicurus. Here at last were curricula dedicated to theory and speculation, rather than immediate application such as prevailed elsewhere in education. Efforts were made to reach ultimate causes of things in the natural, social, and spiritual worlds. Research education had been attained.

Roman education, despite Hellenization and eventual pedantry, always held to the purposes of training a disciplined member of the family—a return to primitive ideals—as a disciplined member of the state. In early Rome only the rudiments of reading, writing, and counting were thought important for public men. After the third century B.C., the importation of educated Greek slaves increased the Hellenization of educational orientation. Under the republic, education remained private in character. Under the empire, chairs of higher learning were established by the emperors at important population centers. Municipalities in the provinces were required to establish government-supported schools. Special privileges were instituted for teachers. Economically handicapped students were given financial aid. This learning, however, was still for the advanced student, and the rudiments continued to be taught privately, the crafts by guilds using the apprentice system.

The general tenor of Smith's work is that formal, state-supported education is a relatively new thing in the world. He finds only sporadic evidence for the establishment of such procedure prior to the time of Christ and, except for the Hebrew experiment, none shortly after Christ. He has, of course, set his own criterion as to what formal education is, but he was for many years a professor of education at the University of California, thus probably is justified in setting standards. I found his book interesting, his thesis logical and well supported. —JAMES L. SWAUGER

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